UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,317	07/09/2001	Alexandros Biliris	2000-0280-CON	9040

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EXAMINER
JEAN GILLES, JUDE

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/901,317	BILIRIS ET AL.
	Examiner	Art Unit	
	Jude J Jean-Gilles	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on *12 May 2000*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-24* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-24* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *12 May 2000* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to communication filed on 07/09/2001 which is a

continuation of application number 09678523. Claimed priority is granted from

provisional application 60203546 with an earlier effective filing date of 05/12/2000.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

2.   Claims 1-24 are rejected under 35 U.S.C. 102(e) as being unpatentable by

Logan et al (U.S. 6,578,066).

Regarding claim 1: Logan et al teach a method of serving content in a packet-

switched network (*fig. 1, item 100*) comprising the steps of:

choosing from a plurality of content distribution networks which content

distribution network will respond to a content request from a client (*column 11, lines 60-*

65; fig. 3, items 302-308);

redirecting the client to the chosen content distribution network so that the

content request will be served by the chosen content distribution network (*column 5,*

lines 38-44).

Regarding claim 2: Logan et al teach the method of claim 1 wherein the content distribution network is chosen in accordance with a predetermined policy (*column 5, lines 6-14*).

Regarding claim 3: Logan et al teach the method of claim 2 wherein the content distribution network is chosen based on a determination of which of the plurality of content distribution networks is closer to the client (*column 5, lines 14-16*).

Regarding claim 4: Logan et al teach the method of claim 2 wherein the content distribution network is chosen based on a measurement of load on the content distribution networks (*column 5, lines 8-13*).

Regarding claim 5: Logan et al teach the method of claim 4 wherein the content distribution network is chosen only if the measured load on the content distribution network does not exceed a pre determined capacity reserved on the content distribution network (*column 9, lines 59-63*).

Regarding claim 6: Logan et al teach [CONVOLUTED URLS] the method of claim 1 wherein the content to be served by the chosen content distribution network comprises content embedded in a document to be served to the client (*column 3, lines 8-11*).and wherein the step of redirecting the client to the chosen content distribution network further comprises the step of rewriting references to the embedded content before serving the document to the client (*column 3, lines 22-25*).

Regarding claim 7: Logan et al teach the method of claim 6 wherein the reference to the embedded content is rewritten to point to a server in the chosen content distribution network (*column 4, lines 49-56*).

Regarding claim 8: Logan et al teach the method of claim 6 wherein the
reference to the embedded content is rewritten to point to a domain name served by the
content distribution network (*column 4, lines 49-56*).

Regarding claim 9: Logan et al teach the method of claim 6 wherein the
reference to the embedded content is rewritten so that the original reference may be
readily parsed from the rewritten reference (*column 3, lines 18-25; column 4, lines 47-
60*).

Regarding claim 10: Logan et al teach the method of claim 9 wherein the
chosen content distribution network can utilize the reference to obtain the embedded
content if the chosen content distribution network does not have an up-to-date copy of
the embedded content in a cache (*column 4, lines 1-9*).

Regarding claim 11: Logan et al teach [DNS OUTSOURCING] the method of
claim 1 wherein the step of redirecting the client to the chosen content distribution
network further comprises the step of having domain name system queries resolve to
content served by the chosen content distribution network (*column 5, lines 45-59*).

Regarding claim 12: Logan et al teach [A RECORD REDIRECTION] the
method of claim 11 wherein the domain name system queries are answered with a
network address of content served by the chosen content distribution network (*column
5, lines 45-59*).

Regarding claim 13: Logan et al teach [NS RECORD REDIRECTION] the

method of claim 11 wherein domain name system queries are answered with a network

address of a domain name system server responsible for the chosen content

distribution network (*column 5, lines 45-59; column 4, lines 1-16*).

Regarding claim 14: Logan et al teach [CNAME REDIRECTION] the method of

claim 11 wherein domain name system queries are answered with a domain name of

content served by the chosen content distribution network (*column 4, lines 1-16*).

Regarding claim 15: Logan et al teach [TRIANGULATION] the method of claim

11 wherein domain name system queries are forwarded to a domain name server

responsible for the chosen content distribution network and which directly answers the

domain name system query (*column 4, lines 1-16*).

Regarding claim 16: Logan et al teach the method of claim 1 wherein the

content distribution network serves the content request from a local cache and wherein

the content distribution network has access to a second copy of the content if there is a

cache miss (*column 4, lines 1-9. It is important to note here that the second copy is

placed on any site in the network*).

Regarding claim 17: Logan et al teach [TABLE DRIVEN DISAMBIGUATION]

the method of claim 16 wherein the content distribution network has a table of

associations between references to content served by the content distribution network

and references to a second copy of the content served from elsewhere in the network

(*column 7, lines 24-35; column 10, lines 17-35*).

Regarding claim 18: Logan et al teach [SEMANTIC MAPPING

DISAMBIGUATION] The method of claim 16 wherein the content distribution network

can transform references to content served by the content distribution network into

second references to a second copy of the content served from elsewhere in the

network (*column 10, lines 36-65*).

Regarding claim 19: Logan et al teach a brokering domain name system server

(*column 5, lines 46-59; column 11, lines 60-67*) comprising:

a domain name system engine which is capable of answering domain name

system queries from a client (*column 5, lines 46-55; gig. 1, item 100*);

a policy module which directs the domain name system engine to answer domain

name system queries in accordance with a predetermined policy which resolves a

domain name to a server in a content distribution network chosen from a plurality of

content distribution networks (*column 5, lines 3-28*).

Regarding claim 20: Logan et al teach the brokering domain name server of

claim 19 wherein the predetermined policy reflects a chosen content distribution

network and redirection mechanism for each of a plurality of regions of client network

addresses (*column 10, lines 16-35; column 5, lines 6-14*).

Regarding claim 21: Logan et al teach the brokering domain server of claim 19

wherein the policy module further comprises an interface to information received from

the plurality of content distribution networks and wherein the policy module modifies the

predetermined policy in response to the information (*column 10, lines 37-65*).

Regarding claim 22: Logan et al teach the brokering domain server of claim 21 wherein the information further comprises load information and wherein the predetermined policy reflects capacity reserved on each of the plurality of content distribution networks (*column 5, lines 45-59*).

Regarding claim 23: Logan et al teach a method of redirecting content requests between content distribution networks (*fig. 1, item 100*), comprising the steps of:

receiving a domain name lookup request for content served by a plurality of content distribution networks (*column 5, lines 45-59*);

choosing one out of the plurality of content distribution networks to serve the content (*column 5, lines 45-59*);

answering the domain name lookup request in a manner such that a subsequent request for content will be served by the chosen content distribution network (*column 4, lines 1-16*).

Regarding claim 24: Logan et al teach a method of redirecting content requests between content distribution networks (*column 5, lines 38-44*), comprising the steps of:

receiving a request for a document which contains one or more embedded content references (*column 3, lines 8-11*);

retrieving the document (*column 3, lines 8-11*);

choosing one out of a plurality of content distribution networks to serve the embedded content (*column 3, lines 8-16*);

rewriting the document so that the embedded content references point to content stored at the chosen content distribution network (*column 3, lines 18-22*); and

transmitting the rewritten document (*column 3, lines 22-25*).

Conclusion

3.   Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

Primary Examiner
Art Unit 2143
William C. Vaughn, Jr

JJG

October 27, 2004